

***LineUp With Math™* Alignment**  
**Mathematics Grade-Level Expectations**

**Number and Number Relations**

**Grade-Level Expectations**

11. Explain concepts of ratios and equivalent ratios using models and pictures in real-life problems (e.g., understand that  $\frac{2}{3}$  means 2 divided by 3) (N-8-M) (N-5-M)

***LineUp With Math™* Activities**

--Use an interactive simulator plus calculation worksheets to apply proportional reasoning to identify and resolve distance, rate, time conflicts in air traffic control.

**Measurement**

**Grade-Level Expectations**

16. Apply the concepts of elapsed time in real-life situations and calculate equivalent times across time zones in real-life problems (M-1-M) (M-6-M)

***LineUp With Math™* Activities**

--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.

18. Estimate time, temperature, weight/mass, and length in familiar situations and explain the reasonableness of answers (M-2-M)

--Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

20. Identify appropriate tools and units with which to measure time, mass, weight, temperature, and length (M-3-M)

--Identify and resolve distance, rate, time conflicts in air traffic control problems by varying plane speeds or changing plane routes.

23. Convert between units of measurement for length, weight, and time, in U.S. and metric, within the same system (M-5-M)

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.